Applications are open for PhD student positions at the Barcelona Supercomputing Center (BSC-CNS). The research will be focused on two main efforts:

- Using artificial intelligence techniques to accelerate computer architectures and parallel runtime systems.
Accelerating artificial intelligence workloads by using techniques like approximate or large scale computing.

The work will be carried out in close collaboration with top IT companies and research institutions.

**Key Duties**

1. Formulate and evaluate new ideas in a rigorous way
2. Write technical reports and papers
3. Use and extend scientific code (Tensorflow, simulators, parallel runtime systems, etc.)

**Requirements**

- **Education**
  - Master degree in Computer Science or similar area (candidates expected to graduate in the current course are also encouraged to apply).
- **Essential Knowledge and Professional Experience**
  - Computer Architecture: micro-architecture, resource sharing in multicores, cache hierarchy, simulation techniques.
  - Artificial Intelligence: rule-based reasoning, decision trees, support vector machines, neural networks
  - Operating Systems: Linux, scripting, OS scheduler
  - Performance Analysis and Tuning of parallel applications
  - Programming: C/C++, OpenMP/MPI, CUDA, etc.
- **Competences**
  - Ability to take initiative and prioritize
  - Ability to work independently and in a team
  - Capacity to interact and build strong relations with other research groups
  - Excellent written and verbal communication skills in English

**Conditions**

- The position will be located at BSC within the Computer Sciences Department
- We offer a full-time contract, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Starting date: ASAP

**Applications Procedure**

All applications must include:

- A motivation letter with a statement of interest, including two contacts for further references - COMPULSORY - Applications without this document will not be considered
• A full CV including contact details

**Deadline**

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

**Diversity and Equal Opportunity Employment**

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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